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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES R. GALLAGHER, BINH K. HUA,
and SIVARAMA K. KODUKULA

Appeal 2008-004595
Application 10/616,848
Technology Center 2100

Decided: November 19, 2009

Before HOWARD B. BLANKENSHIP, ST. JOHN COURTENAY III, and
DEBRA K. STEPHENS, *Administrative Patent Judges*.

STEPHENS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of
claims 1-22. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

STATEMENT OF THE CASE

Introduction

According to Appellants, the invention is a method, apparatus, and computer instructions for handling failure of a primary adapter in a data processing system (Abstract). When the primary adapter fails, a device driver switches a standby adapter in for the primary adapter (*Id.*).

Exemplary Claim(s)

Claim 1 is an exemplary claim and is reproduced below:

1. A method in a device driver for handling a failure of a primary adapter in a data processing system, the method comprising:

queuing data in a data queue used by the primary adapter;

monitoring the primary adapter for the failure; and

responsive to detecting the failure, switching to a standby adapter handled by the device driver, wherein the standby adapter uses the data in the data queue.

Prior Art

Mahalingham	US 6,314,525 B1	Nov. 6, 2001
Kurapati	US 7,007,190 B1	Feb. 28, 2006 (filed Sep. 6, 2001)

Rejection

Claims 1-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mahalingham and Kurapati.

GROUPING OF CLAIMS

Appellants argue claims 1-7 based on independent claim 1 (App. Br. 9-16, §A.1). We will, therefore, treat claims 2-7 as standing or falling with representative claim 1.

Appellants argue claims 8-14 based on independent claim 8; however, these are the same arguments set forth for independent claim 1 (App. Br. 16-17, §A.2). We will, therefore, treat claims 9-14 as standing or falling with representative claim 1.

Appellants argue claims 15-21 based on independent claim 15; however, these are the same arguments set forth for independent claim 1 (App. Br. 18-19, §A.3). We will, therefore, treat claims 16-21 as standing or falling with representative claim 1.

Appellants argue claim 22 based on the same arguments set forth for independent claim 1 (App. Br. 19-21, §A.4).

We accept Appellants' grouping of the claims. See 37 C.F.R. § 41.37(c)(1)(vii) ("Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately.").

ISSUE 1

35 U.S.C. § 103(a): claims 1-22

Appellants assert Kurapati does not teach “queuing data in a data queue *used by the primary adapter*” or “*the standby adapter uses the data in the data queue*” as recited in claim 1 (App. Br. 10 and 12, §A.1.i). Instead, Appellants argue, Kurapati teaches a system for routing voice calls that has redundant software components exchange replicated information so calls are not dropped (*Id.*). Appellants then contend that since software components are not hardware components which adapters are, Kurapati does not teach the recited limitation (App. Br. 11, §A.1.i).

The Examiner asserts that Mahalingham discloses a queue used by a primary and a secondary adapter, albeit a different type of queue than that recited in claim 1 (Ans. 13, §(10)1.). However, the Examiner finds the processing of queuing data recited in claim 1 is taught by the shared memory queue of Kurapati (*Id.*). The Examiner then concludes that combining the method of data replication for redundant network components taught by Kurapati into the system of Mahalingham would have been obvious to an ordinary person skilled in the art because it would have provided a reliable data replication (Ans. 4, §(9)1.).

Issue 1: Have Appellants met the burden of showing the Examiner erred in concluding the combination of Mahalingham and Kurapati teaches “queuing data in a data queue used by the primary adapter” and “the standby adapter uses the data in the data queue?”

FINDINGS OF FACT (FF)

We find as follows:

Mahalingham Reference

(1) Mahalingham teaches a method and system for detecting failure of network adapters coupled to a server and including a primary adapter and secondary adapters (col. 2, ll. 55-58).

(2) The Examiner finds Mahalingham discloses “the primary and secondary adapter comprising a queue used by each of the primary and secondary adapter (fig. 11, 1356b, 1358b)” (Ans. 13, §10(1))

(3) We find Mahalingham discloses a primary and a secondary adapter, each of which has a queue (col. 21, ll. 1-22 and Fig. 11, elements 1356A-B and 1358A-B)).

Kurapati Reference

(4) Kurapati teaches a method and system for replicating data for redundant network components (Abstract).

(5) The Examiner finds Kurapati discloses the process of queuing data by a shared memory queue and specifically, a data replicator using the replicate data stored in a shared memory database from a network component to a mate network component (Ans. 13, §10(1)).

PRINCIPLES OF LAW

Obviousness

[A]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the ‘improvement’ is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient ... In such situations, the proper question is whether the ordinary artisan possesses knowledge and skills rendering him *capable* of combining the prior art references.

DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co., 464 F.3d 1356, 1368 (Fed. Cir. 2006) (emphasis in original).

Discussing the question of obviousness of a patent that claims a combination of known elements, *KSR Int’l v. Teleflex, Inc.*, 550 U.S. 398 (2007), explains:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

KSR, 550 U.S. at 417. If the claimed subject matter cannot be fairly characterized as involving the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art

ready for the improvement, a holding of obviousness can be based on a showing that “there was an apparent reason to combine the known elements in the fashion claimed.” *Id.* at 418.

If the Examiner’s burden is met, the burden then shifts to the Appellants to overcome the prima facie case with argument and/or evidence. *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

ANALYSIS

Appellants’ arguments (including that Kurapati does not disclose an adapter), focus on the individual differences between the limitations of claim 1 and the Kurapati and Mahalingham references each considered in isolation. It is apparent, however, from the Examiner’s line of reasoning, that the basis for the obviousness rejection is the *combination* of Kurapati and Mahalingham.¹ One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *In re Keller*, 642 F. 2d 413, 425 (CCPA 1981); *In re Merck & Co., Inc.*, 800 F. 2d 1091, 1096 (Fed. Cir. 1986).

In other words, while Appellants contend that Kurapati lacks a teaching of primary and secondary adapters, we find such feature is taught by Mahalingham for the reasons set forth by the Examiner (FF 2). Similarly,

¹ The test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. *In re Keller*, 642 F.2d 414, 425 (CCPA 1981); *In re Young*, 927 F.2d 588, 591 (Fed. Cir. 1991).

while Appellants contend that Mahalingham lacks a teaching of a shared queue, we agree with the Examiner that this teaching is clearly taught by Kurapati (FF 5).

Therefore, after considering the totality of the record before us, it is our view Appellants have not met the burden of showing the Examiner erred in finding that the combination of Mahalingham and Kurapati teaches the argued limitations of “queuing data in a data queue used by the primary adapter” and “the standby adapter uses the data in the data queue” (*See* independent claim 1 and the commensurate language recited in each of independent claims 8, 15, and 22). Accordingly, Appellants have not shown that the Examiner has erred.

ISSUE 2

35 U.S.C. § 103(a): claims 1-22

Appellants next argue the Examiner failed to state a proper teaching, suggestion, or motivation to combine the references and that no teaching, suggestion, or motivation exists to combine the Mahalingham and Kurapati references because each reference represents a complete solution to the problem that each solves (App. Br. 13, §A.1.ii. and App. Br. 14, §A.1.iii.). Appellants continue that Kurapati teaches a system for routing voice calls while Mahalingham provides that packet information is rerouted to a secondary adapter upon failure of receipt by a primary adapter (App. Br. 15, §A.1.iii.). Therefore, according to Appellants, one of ordinary skill would

have no reason to combine or otherwise modify the references as no teaching, suggestion, or motivation exists to combine the references (App. Br. 15-16, §A.1.iii.).

The Examiner finds Mahalingham is drawn to a system providing seamless redundant failover should a primary card fail (Ans. 14, §10(2.)). The Examiner further finds Kurapati is drawn to replicate redundant data failover seamlessly should a fault occur to a primary component (*id.*). The Examiner finds although Mahalingham has no need for replicated information and uses two separate queues for each network component, one of ordinary skill in the art would not be prohibited from combining the queuing of Kurapati into the system of Mahalingham (Ans. 15, §10.(3)). Thus, the Examiner finds the two references operate in the same field of endeavor to provide failover in a redundant system and the advantage of replicating redundant data loss (*id.*). The Examiner finds a motivation to combine these technologies exists (*id.*).

Issue 2: Have Appellants met the burden of showing the Examiner erred by improperly combining the Mahalingham and Kurapati references?

ANALYSIS

The Examiner has set forth a motivation for combining the technologies of Mahalingham and Kurapati (Ans. 4, §9(1.) and Ans. 14, §10(2.)). Based upon our review of the record, we find the Examiner has

articulated a reason with a rational underpinning to support the legal conclusion of obviousness.² “As long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor.” *In re Beattie*, 974 F.2d 1309, 1312 (Fed. Cir. 1992). We find Appellants have not persuasively argued or provided evidence that the Examiner’s stated reasoning did not have a rational underpinning.

As stated above, the Examiner has set forth a rationale reason for combining the Mahalingham and Kurapati references. Whether each reference provides a complete solution to a problem does not impact whether one of ordinary skill in the art would have been motivated to combine features of each reference. We find one of ordinary skill in the art would have been motivated to combine the technology of Kurapati into the system of Mahalingham to improve a seamless redundant failover should a primary component fail. Indeed, we find a person of ordinary skill in the art would have recognized the advantages of using the shared queue of Kurapati in the system of Mahalingham and that such a combination would not have been beyond the skill of that person. Appellants have not persuasively argued or presented evidence to rebut the Examiner’s finding that a motivation existed.

² There must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Therefore, based on the record before us, we find that one of ordinary skill in the art would have been motivated to modify the system of Mahalingham with the technique of Kurapati, and we conclude that such combination would have been obvious to one skilled in the art.

CONCLUSION

Based on the findings of facts and analysis above:

Appellants have not met the burden of showing the Examiner erred in finding “queuing data in a data queue used by the primary adapter” and “the standby adapter uses the data in the data queue.”

Appellants have not met the burden of showing the Examiner erred by improperly combining the Mahalingham and Kurapati references.

Accordingly, Appellants have not met the burden of showing the Examiner erred in rejecting claims 1-22 under 35 U.S.C. § 103(a) for obviousness over Mahalingham and Kurapati.

DECISION

The Examiner’s rejection of claims 1-22 under 35 U.S.C. § 103(a) as being obvious over Mahalingham and Kurapati is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). See 37 C.F.R. § 1.136(a)(1)(iv) (2009).

AFFIRMED

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